

1.0 INTRODUCTION

On November 29, 2004, Northwest Pipeline Corporation (Northwest), a Williams Gas Pipeline company, filed an application with the Federal Energy Regulatory Commission (Commission or FERC) under sections 7(b) and 7(c) of the Natural Gas Act (NGA), as amended, and Part 157 of the Commission's regulations. The application was assigned Docket No. CP05-32-000 and was noticed in the Federal Register on December 15, 2004. Northwest is seeking a Certificate of Public Convenience and Necessity (Certificate) to construct, modify, and operate facilities to replace the contractual delivery capacity of its existing 268-mile-long, 26-inch-diameter pipeline between Sumas and Washougal, Washington. Northwest is also seeking an Order Permitting and Approving Abandonment of its existing 26-inch-diameter pipeline and related facilities.¹ On February 4, 2005, Northwest filed an amendment to its application in Docket No. CP05-32-001.² The environmental staff of the FERC has prepared this final environmental impact statement (EIS) to assess the environmental impact associated with the construction, operation, and abandonment of the facilities proposed by Northwest in accordance with the requirements of the National Environmental Policy Act (NEPA).

Northwest's proposal, referred to as the Capacity Replacement Project, would involve the construction and operation of about 79.5 miles of 36-inch-diameter pipeline in four separate loops;³ modifications at five existing compressor stations, including the addition of 10,760 horsepower (hp) of compression; and installation of new mainline valves (MLVs) and pig⁴ launchers and receivers. The proposed facilities are designed to provide up to 360 thousand dekatherms per day (Mdt/d) of natural gas transportation capacity to replace the majority of the delivery capacity of Northwest's existing 26-inch-diameter pipeline. Once the new facilities are installed, Northwest would disconnect the entire 268-mile-long, 26-inch-diameter pipeline and related facilities and abandon the system. The majority of the 26-inch-diameter pipeline would be left in place.

Northwest proposes to begin construction in March 2006⁵ and place the facilities in service by November 1, 2006. Abandonment of the 26-inch-diameter facilities that are currently in service cannot be completed until the Capacity Replacement Project is placed in service. All abandonment activities would be completed on or before December 31, 2006. The proposed project is described in detail in section 2.0.

The vertical line in the margin identifies text that has been modified in this final EIS and differs from the corresponding text in the draft EIS.
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1.1 PROJECT PURPOSE AND NEED

Northwest developed its Capacity Replacement Project in response to an amended Corrective Action Order (CAO) issued by the U.S. Department of Transportation (DOT). The initial CAO was issued by the DOT on May 2, 2003 as a result of a rupture that occurred on May 1, 2003 at milepost (MP) 1352.7 on Northwest's existing 26-inch-diameter pipeline near Lake Tapps, Washington. The CAO restricted operating pressures on the 26-inch-diameter pipeline to 80 percent of the maximum allowable operating pressure (MAOP) and required Northwest to reevaluate pipeline integrity and undertake

¹ In utility law, the term abandonment refers to government authorization for a utility to cease provision of a particular service and/or to shut down a particular facility.

² The amendment addressed temporary extra workspace and equipment changes at the Chehalis Compressor Station, identified an additional facility where abandonment activities would occur, and requested additional wetland variances.

³ A loop is a segment of pipeline that is usually installed adjacent to an existing pipeline and connected to it at both ends. The loop allows more gas to be moved through the system.

⁴ A pig is an internal tool that can be used to clean and dry a pipeline and/or to inspect it for damage or corrosion.

⁵ Northwest has requested that three river crossings be authorized to begin in late 2005 if weather permits.

appropriate remedial actions. On December 13, 2003, the 26-inch-diameter pipeline failed again at MP 1281.5, approximately 7 miles south of the Chehalis Compressor Station near Toledo, Washington. The cause of both failures was determined to be stress corrosion cracking. As a result, the May 2, 2003 CAO was amended on December 18, 2003 requiring Northwest to reduce the operating pressure on the 26-inch-diameter pipeline to 100 pounds per square inch gauge (psig) until subsequent testing justified the removal of the pressure restriction, and develop a plan for abandonment of the pipeline. The amended CAO requires Northwest to permanently abandon all segments of the 26-inch-diameter pipeline located in high consequence areas (HCAs) within 3 years from the date of the amended CAO (i.e., by December 18, 2006), all segments located in Class 2 areas within 5 years, and all remaining segments within 10 years. A second amendment to the CAO, issued April 9, 2004, clarified that the abandonment requirement would be satisfied by Northwest abandoning the 26-inch-diameter pipeline and constructing new pipeline facilities designed to meet its future capacity needs.

In compliance with the amended CAO, Northwest reduced the operating pressure on the 26-inch-diameter pipeline to 100 psig in January 2004. An integrity program was developed and Northwest successfully completed hydrostatic testing of 111 miles of the 26-inch-diameter pipeline in early 2004. The DOT then removed the pressure restriction and Northwest temporarily reestablished full service on the 111 miles of 26-inch-diameter pipeline. These segments of the 26-inch-diameter pipeline would remain in operation until December 18, 2006, or completion of the Capacity Replacement Project facilities provided the facilities are in service before December 18, 2006. The remaining 157 miles of 26-inch-diameter pipeline currently remain idled with an operating pressure limit of 100 psig.

Northwest determined that constructing approximately 79.5 miles of 36-inch-diameter pipeline in four separate loops and installing 10,760 hp of compression at two existing compressor stations would replace the required delivery capacity of the 26-inch-diameter pipeline. Therefore, the Capacity Replacement Project would allow Northwest to address the DOT's abandonment requirement for the entire pipeline in one project within 3 years rather than spread over a 3- to 10-year period.

At the time of the CAO, Northwest's system transportation capacity from Sumas to Washougal, Washington was fully contracted. Abandoning the 26-inch-diameter pipeline without replacement would reduce Northwest's Sumas to Washougal design capacity by 360 Mdth/d. Northwest has elected not to build replacement capacity for the approximately 58 Mdth/d of design capacity in the Jackson Prairie to Washougal corridor that currently is not committed under long-term contracts. In addition, in May and June 2004, Northwest held a reverse open season soliciting customer turn back of unneeded contract capacity from Sumas. The reverse open season resulted in commitments to turn back 13 Mdth/d of capacity upon completion of the Capacity Replacement Project. In order to meet existing long-term contract requirements, as well as maintain adequate infrastructure for future market needs, the Capacity Replacement Project is designed to provide 347 Mdth/d of firm capacity for the first 179 miles from Sumas, 360 Mdth/d for the next 16 miles, and approximately 302 Mdth/d for the last 73 miles to Washougal.

On September 15, 1999, the FERC issued a Policy Statement that established criteria for determining whether there is a need for a proposed project and whether the project would serve the public interest. The Policy Statement explains that, in deciding whether to authorize the construction of major new pipeline facilities, the FERC balances the public benefits against the potential adverse consequences. In evaluating new pipeline construction, the FERC's goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, the avoidance of unnecessary disruptions of the environment, and the unneeded exercise of eminent domain.

On May 31, 2005, the FERC issued a Preliminary Determination on Non-Environmental Issues (PD) to Northwest. The PD indicates that Northwest's application under sections 7(b) and 7(c) of the NGA to construct, operate, and abandon natural gas facilities would, on the basis of all pertinent non-environmental issues, be required by the public convenience and necessity. The issuance of a PD does not prejudice any further actions by the Commission. Final action regarding issuance of a Certificate and Order Permitting and Approving Abandonment would not occur until after the environmental review is completed, all environmental issues have been appropriately addressed, and a final Order is issued by the Commission. The issuance of a PD also does not prejudice actions by other jurisdictional agencies such as the issuance of a Water Quality Certification pursuant to section 401 of the Clean Water Act (CWA) and a Determination of Consistency with the Washington Coastal Zone Management Program (CZMP).

1.2 PURPOSE AND SCOPE OF THIS EIS

The principal purposes for preparing an EIS are to:

- identify and assess the potential direct, indirect, and cumulative impacts on the natural and human environment that would result from the implementation of the proposed project;
- describe and evaluate reasonable alternatives to the proposed project that would avoid or substantially lessen any significant adverse effects of the project on the environment;
- identify and recommend specific mitigation measures, as necessary, to avoid or minimize significant environmental effects; and
- encourage and facilitate involvement by the public and interested agencies in the environmental review process.

The topics addressed in this EIS include alternatives; geology; soils; water resources; wetlands; vegetation; wildlife and aquatic resources; special status species; land use, recreation and special interest areas, and visual resources; socioeconomics; cultural resources; air quality and noise; reliability and safety; and cumulative impacts. This EIS describes the affected environment as it currently exists, discusses the environmental consequences of the proposed project, and compares the project's potential impact to that of alternatives. The EIS also presents the FERC staff's recommended mitigation measures and conclusions.

The FERC is the lead agency for the preparation of this EIS. The U.S. Army Corps of Engineers (COE), the Washington State Department of Ecology (WDOE), and the Washington Department of Fish and Wildlife (WDFW) are cooperating agencies.⁶ A cooperating agency has jurisdiction by law or special expertise with respect to environmental impacts involved with the proposal. The roles of the FERC, the COE, the WDOE, and the WDFW in the project review process are described below. The federal, state, and local permits, approvals, and consultations for the project are discussed in section 1.5.

1.2.1 Federal Energy Regulatory Commission

The FERC is the federal agency responsible for evaluating applications filed for authorization to construct, operate, and abandon interstate natural gas pipeline facilities. As such, the FERC is the lead

⁶ The FERC and the cooperating agencies were assisted in the preparation of this EIS by an independent third-party contractor. Before selection of the contractor, the FERC conducted an organizational conflict of interest review of the disclosure statements submitted by the prospective contractors to determine whether a potential or perceived conflict of interest existed. The FERC determined that the selected contractor has no financial or other interest in the outcome of the project and, therefore, does not have a conflict of interest in preparing the EIS.

federal agency for the preparation of this EIS in compliance with the requirements of NEPA, the Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of NEPA (Title 40 Code of Federal Regulations (CFR) Parts 1500-1508), and the FERC's regulations implementing NEPA (Title 18 CFR Part 380).

As the lead federal agency for the Capacity Replacement Project, the FERC is required to comply with section 7 of the Endangered Species Act of 1973 (ESA), the Magnuson-Stevens Fishery Conservation and Management Act (MSA), section 106 of the National Historic Preservation Act (NHPA), and section 307 of the Coastal Zone Management Act of 1972 (CZMA). Each of these statutes has been taken into account in the preparation of this EIS. The FERC will use the document to consider the environmental impact that could result if it issues Northwest a Certificate and Order Permitting and Approving Abandonment under section 7 of the NGA.

The FERC will also consider non-environmental issues in its review of Northwest's application. Authorization will be granted only if the FERC finds that the evidence produced on financing, rates, market demand, gas supply, existing facilities and service, environmental impacts, long-term feasibility, and other issues demonstrates that a project is required by the public convenience and necessity. Environmental impact assessment and mitigation development are important factors in the overall public interest determination.

1.2.2 U.S. Army Corps of Engineers

The COE has jurisdictional authority pursuant to section 404 of the CWA (33 United States Code (USC) 1344), which governs the discharge of dredged or fill material into waters of the United States, and section 10 of the Rivers and Harbors Act (33 USC 403), which regulates any work or structures that potentially affect the navigable capacity of a waterbody. Because the COE must comply with the requirements of NEPA before issuing permits under these statutes, it has elected to participate as a cooperating agency in the preparation of this EIS. The COE would adopt the EIS per Title 40 CFR Part 1506.3 if, after an independent review of the document, it concludes that its comments and suggestions have been satisfied.

As an element of its review, the COE must consider whether a proposed project avoids, minimizes, and compensates for impacts on existing aquatic resources, including wetlands, to strive to achieve a goal of no overall net loss of values and functions.

Although this document addresses environmental impacts associated with the proposed action as they relate to sections 404 and 10, it does not serve as a public notice for any COE permits. Such public notice was issued separately during the comment period for the draft EIS. The COE's Record of Decision (ROD) resulting from consideration of the EIS will formally document its decision on the proposed action, including section 404 (b)(1) analysis and required environmental mitigation commitments.

1.2.3 Washington State Department of Ecology and Washington Department of Fish and Wildlife

The proposed project must also undergo an environmental review pursuant to the State Environmental Policy Act (SEPA) (Chapter 43.21C Revised Code of Washington (RCW)). The SEPA process involves the identification and evaluation of probable environmental impacts, and the development of mitigation measures that will reduce adverse environmental impacts. The WDOE has been designated the lead SEPA agency and is responsible for compliance with SEPA procedural requirements as well as for compiling and assessing information on the environmental aspects of the

proposal for all agencies with jurisdiction in Washington. As the lead SEPA agency, the WDOE is also responsible for the threshold determination⁷ and preparation and content of an EIS when required.

NEPA documents may be used to meet SEPA requirements if the requirements of the State of Washington Administrative Code (WAC) 197-11-610 and 197-11-630 are met and the federal EIS is found to be adequate. To assist the FERC staff in addressing SEPA requirements, the WDOE and the WDFW are participating as cooperating agencies in the preparation of this EIS. The WDOE's and WDFW's comments on the draft EIS were submitted directly to the FERC and are part of the official record for the project. The WDOE's and WDFW's written comments and the FERC staff's responses to each comment are included in section 6.0 of this final EIS. After the final EIS is issued by the FERC, the WDOE would adopt it if an independent review of the document confirms that it meets the WDOE's environmental review standards. The WDOE would adopt the final EIS by identifying the document and stating why it is being adopted using the adoption form in WAC 197-11-965. The adoption form would be circulated to agencies with jurisdiction and to persons or organizations that have expressed an interest in the proposal. No action may be taken on the proposal until 7 days after the statement of adoption form has been issued. Once the 7-day waiting period is completed, the state and local agencies could begin issuing permits. The specific permits that would be issued by the WDOE and WDFW as well as other state and local agencies are discussed in section 1.5.

1.3 PUBLIC REVIEW AND COMMENT

On April 19, 2004, Northwest filed a request with the FERC to implement the Commission's Pre-Filing Process for the Capacity Replacement Project. At that time, Northwest was in the preliminary design stage of the project and no formal application had been filed with the FERC. On May 12, 2004, the FERC granted Northwest's request and established a pre-filing docket number (PF04-10-000) to place information related to the project into the public record. The purpose of the Pre-Filing Process is to encourage the early involvement of interested stakeholders, facilitate interagency cooperation, and identify and resolve issues before an application is filed with the FERC. The COE, the WDOE, and the WDFW agreed to conduct their environmental reviews of the project in conjunction with the Commission's Pre-Filing Process.

As part of the Pre-Filing Process, Northwest mailed notification letters to landowners, government and agency officials, and the general public informing them about the project and inviting them to attend open houses on June 28, 29, and 30, 2004 and July 12, 13, 14, and 15, 2004 to learn about the project and to ask questions and express their concerns. Notifications of the open houses were also published in local newspapers. The open houses were held in Lynden, Deming, Arlington, Monroe, Redmond, Puyallup, and Yelm, Washington. The FERC staff attended the open houses to explain the environmental review process to interested stakeholders and take comments about the project. The questions and concerns raised by the public at the open houses are addressed in this EIS.

On July 1, 2004, the FERC staff conducted an interagency scoping meeting in the project area to solicit comments and concerns about the project from jurisdictional agencies. Agencies present at the meeting included the COE; U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries); the Fort Lewis Military Reservation (Fort Lewis); the WDOE; the WDFW; the Washington State Department of Natural Resources (WDNR); and the Washington Utilities and Transportation Commission (WUTC). The Lummi Nation was also represented. Throughout August 2004, the FERC staff conducted additional agency coordination and scoping meetings with many of these same agencies. Specifically, meetings

⁷ A SEPA threshold determination is the formal decision as to whether or not the proposal is likely to cause a significant adverse environmental impact that requires review in an EIS.

were held with NOAA Fisheries on August 2, the Lummi Nation on August 3, Fort Lewis and the U.S. Fish and Wildlife Service (FWS) on August 4, and the WDOE on August 31, 2004.

On July 19, 2004, the FERC issued a Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Capacity Replacement Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meetings (NOI). The NOI served as the WDOE's Determination of Significance and Request for Comments on the Scope of the EIS. The NOI described the project and the joint environmental review process, provided a preliminary list of EIS issues, invited written comments on the environmental issues to be addressed in the EIS, and listed the date and location of three public scoping meetings to be held in communities in the project area. These meetings were held in Arlington, Redmond, and Yelm, Washington on August 2, 3, and 4, 2004, respectively. The NOI was mailed to affected landowners; federal, state, and local government agencies; elected officials; Native American tribes; environmental and public interest groups; other interested parties; and local libraries and newspapers. The comment period on the NOI closed on August 18, 2004.

Transcripts of the public scoping meetings, summaries of the interagency scoping meetings, and all written scoping comments are part of the public record for the Capacity Replacement Project and are available for viewing on the FERC Internet website (<http://www.ferc.gov>).⁸ Table 1.3-1 lists the environmental issues that were identified during the scoping process described above and indicates the section of the EIS in which each issue is addressed. The most frequently raised issue related to impacts on residential areas. Residents expressed concern about the loss of trees and other landscaping, the removal of fences, restricted access to homes, safety during construction and operation of the facilities, and impacts on property values. Numerous comments about impacts on soils, water wells, surface water and aquatic resources, wetlands, vegetation, special status species, cultural resources, safety, and alternatives were also received. The majority of the comments received from landowners regarding alternatives requested consideration of alternatives to avoid residential areas. The jurisdictional agencies were primarily concerned about Northwest's proposed waterbody crossing methods and requested a detailed evaluation of alternative crossing methods at major and sensitive waterbody crossings.

Some issues that were raised during the scoping process are not environmental issues (e.g., the past hiring history of the applicant; qualifications of construction contractors; problems related to a fiber optic cable; and contract, rate, and turn back capacity issues). These issues are outside the scope of this EIS. Contract, rate, and turn back capacity issues will be addressed by the Commission during its non-environmental review of the project.

The draft EIS was filed with the U.S. Environmental Protection Agency (EPA) and mailed to federal, state, and local government agencies; elected officials; Native American tribes; local libraries and newspapers; intervenors⁹ in the FERC's proceeding; and other interested parties (i.e., landowners, miscellaneous individuals, and environmental groups who provided scoping comments or asked to remain on the mailing list). A formal notice indicating that the draft EIS was available for review and comment was published in the Federal Register and sent with a copy of the Executive Summary to the remaining parties on the mailing list. The public was given 45 days after the date of publication in the Federal Register to review and comment on the draft EIS both in the form of written comments and at three public meetings held in the project area.

⁸ Using the "eLibrary" link, select "General Search" from the eLibrary menu and enter the docket number excluding the last three digits in the "Docket Number" field (i.e., PF04-10 and CP05-32). Be sure to select an appropriate date range.

⁹ Intervenors are official parties to the proceeding and have the right to receive copies of case-related Commission documents and filings by other intervenors. Likewise, each intervenor must provide 14 copies of its filings to the Secretary of the Commission and must send a copy of its filings to all other intervenors. Only intervenors have the right to seek rehearing of the Commission's decision.

The three public meetings were held in Arlington, Redmond, and Yelm, Washington on April 11, 12, and 13, 2005, respectively. The meetings were announced in the draft EIS, in the notice indicating that the draft EIS was available, on the FERC Internet website, and in several local newspapers. Each meeting was recorded. The 45-day comment period for receiving written comments on the draft EIS closed on April 25, 2005. Written comments were received from federal, state, and local agencies; Native American tribes; companies/organizations; individuals; and the project applicant. The transcripts from the public meetings and the written comment letters are available for viewing on the FERC's Internet website (<http://www.ferc.gov>)¹⁰ and are included in section 6.0 of this final EIS with the FERC staff's response to each comment.

On June 9, 2005, the FERC sent letters to tribal members inviting them to a meeting in Seattle, Washington to be held on June 23, 2005 to discuss the draft EIS and tribal comments on the document. Representatives of the FERC, the COE, the WDOE, the WDFW, and Northwest were present at this meeting, which was attended by the Nisqually Tribe and the Lummi Nation. A summary of this meeting is available for viewing on the FERC's Internet website (<http://www.ferc.gov>).¹¹

The final EIS was filed with the EPA and mailed to federal, state, and local government agencies; elected officials; Native American tribes; local libraries and newspapers; intervenors to the FERC's proceeding; and other interested parties (i.e., landowners, miscellaneous individuals, and environmental groups who provided scoping comments, commented on the draft EIS, asked to remain on the mailing list, or wrote to the FERC or one of the cooperating agencies asking to receive a copy of the document). A formal notice indicating that the final EIS is available for review and comment was published in the Federal Register and sent with a copy of the Executive Summary and the Conclusions and Recommendations section of the final EIS to the remaining parties on the mailing list. The distribution list for the final EIS is in Appendix A.

In accordance with CEQ regulations implementing NEPA, no agency decision on the proposed action may be made until 30 days after the EPA publishes a Notice of Availability of the final EIS in the Federal Register. However, the CEQ regulations provide an exception to this rule when an agency decision is subject to a formal internal appeal process that allows other agencies or the public to make their views known. This is the case at the FERC, where any Commission decision on the proposed action would be subject to a 30-day rehearing period. Therefore, the FERC decision may be made at the same time that notice of the final EIS is published by the EPA, allowing the appeal periods to run concurrently.

After notice of the final EIS is published by the EPA, the COE would issue its own ROD adopting the EIS. The ROD would include the COE's section 404(b)(1) analysis. After issuance of the ROD, the COE could issue the section 404 and section 10 permits.

As discussed in section 1.2.3, if the final EIS meets the SEPA requirements and the WDOE's environmental review standards, the WDOE would adopt it by identifying the document and stating why it is being adopted using the adoption form in WAC 197-11-965. The adoption form would be circulated to agencies with jurisdiction and to persons or organizations that have expressed an interest in the proposal. No action may be taken on the proposal until 7 days after the statement of adoption form has been issued. Once the 7-day waiting period and adoption procedures are complete, state and local agencies can issue permits.

¹⁰ Using the "eLibrary" link, select "General Search" from the eLibrary menu and enter the docket number excluding the last three digits in the "Docket Number" field (i.e., PF04-10 and CP05-32). Be sure to select an appropriate date range.

¹¹ Using the "eLibrary" link, select "General Search" from the eLibrary menu and enter the docket number excluding the last three digits in the "Docket Number" field (i.e., CP05-32). Be sure to select an appropriate date range.

TABLE 1.3-1

Issues Identified and Comments Received During the Public Scoping Process for the Capacity Replacement Project

Issue/Specific Comment	EIS Section Addressing Comment
GENERAL	
Project purpose and need	1.1
National Environmental Policy Act Pre-Filing Process, its use in project development, agency coordination, landowner notifications and communications	1.3, 2.5
Environmental inspection and third-party inspection	2.5
Construction, abandonment, operation, and maintenance procedures	2.3, 2.6, 4.12.1
Use of the pipeline to transport commodities other than natural gas	5.4
Environmental studies associated with the project	4.0
Depth of cover	2.3.1, 2.3.2, 4.12.1
Enforcement of easement agreements	2.5
Compliance with Coastal Zone Management determination, including section 401, Clean Air Act, State Environmental Policy Act, Shoreline Management Act and Shoreline Master Programs, other permit requirements	1.5
ALTERNATIVES	
Consideration of a no action alternative and the use of alternative energy sources	3.1
Potential to return the 26-inch-diameter pipeline to permanent service	3.2.2.2
Consideration of compression alternatives, alternative loop locations, like-kind replacement, same trench replacement	3.2.2.2
Consideration of a smaller pipe within the existing pipeline or a liner or sealant to continue use of the existing pipeline	3.2.2.2
Evaluation of alternative waterbody crossing methods where a horizontal directional drill (HDD) is not feasible	3.5, 4.3.2.3
GEOLOGY	
Potential geologic hazards (e.g., earthquakes, landslides, slope stability) and mitigation	4.1.3
Impacts on mines and quarries	4.1.2, 4.8.3.2
SOILS	
Topsoil segregation, erosion and sediment control, cleanup and restoration activities, including rock removal, topsoil replacement, decompaction activities	4.2.2, 4.2.3, Appendix E, Appendix G
Evaluation of hazardous waste sites and/or potential contamination (e.g., mercury, asbestos) encountered during construction, removal, and proposed mitigation	4.2.3, 4.3.1.2, 4.3.2.6, 4.8.5
WATER QUALITY AND AQUATIC RESOURCES	
Impacts on groundwater, well water, and water use	4.3.1.2, 4.3.1.3, Appendix M
Consideration of independent water test pre-, during, and post-construction.	4.3.1.3
Potential for chlorine contamination resulting from using municipal water sources for hydrostatic testing	4.3.1.4
Prevention of spills, cleanup, and notification during construction and operation, impacts from spills/leaks	4.2.3, 4.3.1.2, 4.3.1.3, 4.3.2.2, 4.6.2, Appendix H
Waterbody crossing time windows, methods and requirements, consideration of alternative crossing methods, and mitigation measures	4.3.2, 4.6.2.3, Appendix F, Appendix K
Impacts on waterbodies of interest to Native American tribes	4.3.2, 4.6.2.3, 4.10.3
Evaluation of crossings of Muck Creek and South Fork Creek, including consideration of methods to prevent loss of flow (e.g., placement of seal material to a depth of at least 6 inches, determine baseline flow data, post-construction flow data)	4.3.2.3
Impacts on waterbodies due to hydrostatic test water discharges	4.3.2.7
Potential for ditches to contain Coho salmon, impacts on salmon and mitigation measures, including mitigation for critical salmon spawning areas (e.g., Lake Sammamish, Bear Creek, Evans Creek).	4.6.2, 4.7
WETLANDS	
Impacts on wetlands and hydrologic connectivity to other water resources	4.4.2

TABLE 1.3-1 (cont'd)

Issues Identified and Comments Received During the Public Scoping Process for the Capacity Replacement Project	
Issue/Specific Comment	EIS Section Addressing Comment
Wetland delineation survey methods and results	4.4.1, Appendix J
Post-construction drainage	4.4.3
Wetland crossing methods, construction and operation impacts, and mitigation	2.3.2, 4.4.2, 4.4.3
VEGETATION	
Restoration measures, including seed mixes	4.5.2, Appendix G
Impacts on riparian areas	4.5.3
Right-of-way maintenance	2.6, 4.5
Use of herbicides, noxious weed control	4.5.2, 4.5.3
Impacts on trees, including oak, native conifers, douglas fir, hemlock, cedar trees, cottonwood, alder, and other old growth timber	4.5.2, 4.5.3
Impacts on a certified organic farm	4.5.2
WILDLIFE	
Impacts on wildlife, habitats, and migration corridors resulting from construction, tree removal, and operation	4.6.1.2, 4.6.1.3
SPECIAL STATUS SPECIES	
Agency coordination and requirements	4.7
Evaluation of biological surveys, existing habitats, and potential impacts on threatened or endangered species (e.g., spotted owl), sensitive or risk species, and their habitat	4.7
Analysis of mitigation measures	4.7
LAND USE	
Landowner notification and dispute resolution process	2.5
Residential construction procedures, timeline, noise restrictions, and safety issues and measures	4.8.3.1
Impacts on federal and state lands, including upland state trust land parcels	4.8.2
Abandonment activities on Camp Bonneville Military Reservation	4.8.2
Eminent domain and compensation process	4.8.2, 4.9.5
Ancillary areas such as equipment storage, pipe storage, and contractor yards	2.2, 4.0
Post-construction marking of pipeline location	2.3.1, 2.3.2, 2.6
Potential impacts on hunting and seasonal restrictions or coordination required	4.8.4
Consideration of plans and programs of the Lummi Nation's Natural Resources Department (e.g., Flood Damage Reduction Plan, Multi-Hazard Mitigation Plan) in the evaluation of the project's consistency with regional and local land use plans	1.5
Impacts on existing recreational uses and mitigation	4.8.4
Impacts on future development (e.g., \$25,000,000, 184-unit retirement community) and future recreational areas (e.g., public trails), and mitigation	4.8.3.1
Mitigation for hazardous waste discovered and/or generated during construction	4.2.3, 4.3.1.2, 4.3.2.6, 4.8.5
TRAFFIC AND TRANSPORTATION	
Impacts on transportation and traffic and future developments, access to homes and public communications, avoidance of residential areas and private driveways, plans for alternative routes in the Deer Park Subdivision	4.9.4
Transportation safety and impacts	4.9.4
Federal, state, and local road crossing permitting requirements	1.5
Crossing methods at road crossings and timeline	4.9.4
Impacts on adjacent utilities situated within state highway right-of-way	4.9.4
Traffic-related impacts within Snohomish County, including detours, traffic control, and other mitigation measures	4.9.4
SOCIOECONOMICS	
Impacts on house and land values and use, effect on taxes, and potential for increased insurance rates	4.9.5, 4.9.6
Impacts from pipeline construction and operation on heavily populated areas	4.8.3.1

TABLE 1.3-1 (cont'd)

Issues Identified and Comments Received During the Public Scoping Process for the Capacity Replacement Project	
Issue/Specific Comment	EIS Section Addressing Comment
Impacts on and access to schools during construction	4.9.3
Effects of the expanded pipeline capacity on the natural gas distribution system and employment opportunities	4.9.1, 4.9.5
Environmental justice considerations	4.9.7
CULTURAL RESOURCES	
Impact on cultural and archaeological resources; Traditional Cultural Properties; Native American properties, landforms, burials, and ceremonies	4.10
Tribal consultation, including fishing issues	4.10.3
Development of a Cultural Resources Management Plan, Unanticipated Discovery Plan, and Frac-Out Plan	2.3, 4.3.2.3, 4.10, Appendix I
AIR QUALITY	
Impacts on air quality and health resulting from construction	4.11.1
NOISE	
Noise regulations applicable to the project	4.11.2.1
Evaluation of noise generated during construction	4.11.2.2
Potential noise impacts resulting from compressor station upgrades	4.11.2.2
RELIABILITY AND SAFETY	
Maintenance and enforcement of protection and security matters	4.12
Construction and operation of the pipeline through the active Fort Lewis Military Reservation, including construction access and schedule	4.8.4
Regulations and safeguards	4.12.1, 4.12.3, 4.12.4
Pipeline depths, markers, corrosion impacts	2.3.1, 2.3.2, 2.6, 4.12.1
Security measures to prevent vandalism or terrorist-like attacks	4.12.4
Analysis of safety hazards and identification of safety features	2.6, 4.12.1
Emergency response plans	4.12.1
CUMULATIVE IMPACTS	
Analysis of cumulative impacts based on pre-development or "pristine" environmental conditions rather than current conditions	4.13
Analysis of cumulative impacts associated with multiple pipelines parallel to one another	4.13

1.4 NONJURISDICTIONAL FACILITIES

Under section 7 of the NGA, the FERC is required to consider, as part of its decision to certificate interstate natural gas facilities, all factors bearing on the public convenience and necessity. The facilities for the Capacity Replacement Project that would be under the FERC's jurisdiction include approximately 79.5 miles of new 36-inch-diameter pipeline, 10,760 hp of new compression, new MLVs, and new pig launchers and receivers. The FERC also has jurisdiction over the facilities that would be abandoned. The proposed and abandoned facilities are described in detail in section 2.1.

Occasionally, proposed projects have associated facilities that do not come under the jurisdiction of the FERC. These "nonjurisdictional" facilities may be integral to the need for the proposed project (e.g., a new or expanded power plant at the end of a pipeline that is not under the jurisdiction of the FERC) or they may be merely associated as a minor, non-integral component of the jurisdictional facilities that would be constructed and operated as a result of the proposed facilities.

There are no nonjurisdictional facilities associated with the Capacity Replacement Project.

1.5 PERMITS, APPROVALS, CONSULTATIONS, AND REGULATORY REQUIREMENTS

Table 1.5-1 lists the major federal, state, and local codes, ordinances, statutes, rules, regulations, and permits that would apply to the Capacity Replacement Project. A description of these requirements and how the project would comply with each requirement is also provided in table 1.5-1. A discussion of consultations with Native American tribes is presented in section 4.10.3. Additional information on the CZMA, Growth Management Act, and the Puget Sound Water Quality Management Plan (PSWQM Plan) is presented in sections 1.5.1, 1.5.2, and 1.5.3, respectively. Northwest would be responsible for obtaining all permits and approvals required to implement the proposed project, regardless of whether they appear in table 1.5-1.

1.5.1 Coastal Zone Management Act

In 1972, Congress passed the CZMA to "preserve, protect, develop, and where possible, to restore or enhance, the resources of the nation's coastal zone for this and succeeding generations" and to "encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone" (16 USC 1452, section 303 (1) and (2)).

Section 307 (c)(3)(A) of the CZMA states that "any applicant for a required federal license or permit to conduct an activity, in or outside the coastal zone, affecting any land or water use or natural resource of the coastal zone of that state shall provide a certification that the proposed activity complies with the enforceable policies of the state's approved program and that such activity will be conducted in a manner consistent with the program." In order to participate in the coastal zone management program, a state is required to prepare a program management plan for approval by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coast and Ocean Resource Management (OCRM). Once the OCRM has approved a plan and its enforceable program policies, a state program gains "federal consistency" jurisdiction. This means that any federal action (e.g., a project requiring federally issued licenses or permits) that takes place within a state's coastal zone must be found to be consistent with state coastal policies before the federal action can take place.

The Washington CZMP received federal approval in 1976. The coastal zone in Washington includes the 15 counties with marine shorelines, including Clallam, Grays Harbor, Island, Jefferson, King, Kitsap, Mason, Pacific, Pierce, San Juan, Skagit, Snohomish, Thurston, Wahkiakum, and Whatcom Counties.

TABLE 1.5-1

Major Permits, Approvals, and Consultations for the Capacity Replacement Project ^a

Agency	Permit/Approval/ Consultation	Agency Action	Statement of Compliance
FEDERAL			
Advisory Council on Historic Preservation	Section 106 Consultation, National Historic Preservation Act (NHPA)	Has the opportunity to comment on the undertaking.	Northwest, as a non-federal party, is assisting the FERC in meeting its obligations under section 106 and the implementing regulations in Title 36 Code of Federal Regulations (CFR) Part 800 (see section 4.10).
Federal Energy Regulatory Commission	National Environmental Policy Act (NEPA)	Complete the NEPA review of the proposed project.	The environmental staff of the FERC has prepared this draft environmental impact statement (EIS) to assess the environmental impact associated with the construction, operation, and abandonment of the facilities proposed by Northwest in accordance with the requirements of NEPA (see section 1.0).
	Section 7 Endangered Species Act (ESA) Consultation, Biological Assessment (BA)	Consult with the U.S. Fish and Wildlife Service (FWS) and/or the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) regarding federally listed endangered or threatened species and prepare a BA for those species that may be affected.	In compliance with section 7 of the ESA, a BA for the Capacity Replacement Project has been submitted to the FWS and NOAA Fisheries under separate cover (see section 4.7).
	Environmental Justice	Review the proposed project for consistency with Executive Order 12898.	The requirements of this Executive Order would be addressed through the NEPA process (see section 4.9.7).
	Noxious Weeds	Review the proposed project for consistency with Executive Order 13112.	The requirements of this Executive Order would be addressed through the NEPA process (see section 4.5.4).
	Certificate of Public Convenience and Necessity/Order Permitting and Approving Abandonment	Determine whether the construction, operation, and abandonment of the facilities associated with the project are in the public interest. Consider certification of the project.	Environmental impact assessment and mitigation development are important factors in the overall public interest determination. The environmental impacts of the project are addressed in this EIS in accordance with the requirements of NEPA (see section 1.2.1).

TABLE 1.5-1 (cont'd)

Major Permits, Approvals, and Consultations for the Capacity Replacement Project ^a

Agency	Permit/Approval/ Consultation	Agency Action	Statement of Compliance
U.S. Department of Agriculture Natural Resources Conservation Service (NRCS)	NEPA	Provide comments on prime farmland soils, drain tiles, farmed wetlands, and planned channel relocation projects.	The environmental staff of the FERC has prepared this final EIS to assess the environmental impact associated with the construction, operation, and abandonment of the facilities proposed by Northwest in accordance with the requirements of NEPA. The NRCS' responsibilities would be addressed through the NEPA process. Information on prime farmland soils and drain tiles is provided in section 4.2; farmed wetlands are discussed in section 4.4. The FERC staff is unaware of any planned channel relocation projects in the vicinity of the facilities associated with the Capacity Replacement Project.
U.S. Department of the Army Corps of Engineers (COE) Seattle District	Section 10 Rivers and Harbors Act Permit	Consider issuance of a section 10 permit for crossing navigable waterways.	Northwest would submit an application to the COE for a section 10 Rivers and Harbors Act permit for crossing navigable waterways and would comply with all permit stipulations. Additional information regarding the role of the COE in the project review process is provided in section 1.2.2. Information on the waterways crossed by the Capacity Replacement Project is provided in section 4.3.2.
	Section 404 Clean Water Act (CWA) Permit	Consider issuance of a section 404 permit for the placement of dredge or fill material into all waters of the United States, including wetlands.	Northwest would submit an application to the COE for a section 404 permit for the placement of dredge or fill material into all waters of the United States and would comply with all permit stipulations. Additional information regarding the role of the COE in the project review process is provided in section 1.2.2. Information on the surface waters and wetlands affected by the Capacity Replacement Project is provided in sections 4.3.2 and 4.4, respectively.
U.S. Department of the Army Corps of Engineers and U.S. Department of the Interior, Bureau of Land Management	Right-of-Way Grant Amendment	Consider amending Northwest's existing right-of-way grant to allow project-related activities on the Fort Lewis Military Reservation (Fort Lewis) and Camp Bonneville.	Northwest would submit a request to the Fort Lewis Real Estate Officer asking for an amendment to its existing easement for the activities associated with the Capacity Replacement Project (see section 4.8.2).
U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries)	Section 7 ESA Consultation, Biological Opinion (BO)	Consider lead agency finding of impact on federally listed or proposed threatened and endangered species and their habitat. Provide a BO if the project is likely to adversely affect federally listed or proposed species or their habitat.	In response to the BA and the FERC's request for formal consultation to comply with section 7 of the ESA, NOAA Fisheries would issue a BO as to whether or not the federal action would likely jeopardize the continued existence of a listed species, or result in the destruction or adverse modification of designated critical habitat (see section 4.7).

TABLE 1.5-1 (cont'd)

Major Permits, Approvals, and Consultations for the Capacity Replacement Project ^a

Agency	Permit/Approval/ Consultation	Agency Action	Statement of Compliance
U.S. Department of the Interior Fish and Wildlife Service (FWS)	Magnuson-Stevens Fishery Conservation and Management Act	Conduct review and oversight of essential fish habitat (EFH).	The required EFH Assessment has been incorporated into the BA for the Capacity Replacement Project and has been submitted to NOAA Fisheries under separate cover (see section 4.6.2.2).
	Section 7 ESA Consultation, BO	Consider lead agency finding of impact on federally listed or proposed threatened and endangered species and their habitat. Provide a BO if the project is likely to adversely affect federally listed or proposed species or their habitat.	In response to the BA and the FERC's request for formal consultation to comply with section 7 of the ESA, the FWS would issue a BO as to whether or not the federal action would likely jeopardize the continued existence of a listed species, or result in the destruction or adverse modification of designated critical habitat (see section 4.7).
	Fish and Wildlife Coordination Act (FWCA)	Provide comments to prevent loss of and damage to wildlife resources.	The requirements of the FWCA would be addressed through the NEPA process (see sections 4.6 and 4.7).
	Migratory Bird Treaty Act	Review the proposed project for consistency with Executive Order 13186.	The requirements of this Executive Order would be addressed through the NEPA process (see section 4.6.1.3).
U.S. Department of Transportation Federal Highway Administration	Encroachment Permit	Consider issuance of a permit to cross federally funded highways.	Northwest would apply for the permits necessary for road crossings and would comply with all permit stipulations. Information on the roads and highways crossed by the Capacity Replacement Project is provided in section 4.9.4.
U.S. Department of the Treasury Bureau of Alcohol, Tobacco, and Firearms	Explosive User's Permit	Consider issuance of a permit to purchase, store, and use explosives for site preparation during loop construction (if required).	For those areas where blasting cannot be avoided, Northwest would comply with all applicable federal, state, and local regulations (see section 4.1.1).
U.S. Environmental Protection Agency Region 10	Section 401, CWA, Water Quality Certification	Consider issuance of water use and crossing permits for the portion of the project on Fort Lewis and tribal lands.	Northwest would apply for the permits necessary for water use and crossings on Fort Lewis and tribal lands and would comply with all permit stipulations. Information on waterbody crossings and surface water uses during construction is provided in section 4.3.2.
	Section 404, CWA	Review CWA, section 404 wetland dredge-and-fill applications to the COE with 404(c) veto power for wetland permits issued by the COE.	Northwest would submit an application to the COE for a section 404 permit for the placement of dredge or fill material into all waters of the United States and would comply with all permit stipulations. Information on the surface waters and wetlands affected by the Capacity Replacement Project is provided in sections 4.3.2 and 4.4, respectively.

TABLE 1.5-1 (cont'd)

Major Permits, Approvals, and Consultations for the Capacity Replacement Project ^a

Agency	Permit/Approval/ Consultation	Agency Action	Statement of Compliance
	Stormwater Discharge Permit	Review and issue stormwater permit for the portion of the project on Fort Lewis and tribal lands.	Northwest would apply for a stormwater permit for the portion of the project on Fort Lewis and tribal lands and would comply with all permit stipulations. Northwest would also implement the January 17, 2003 versions of the FERC staff's Upland Erosion Control, Revegetation, and Maintenance Plan (Plan) and Wetland and Waterbody Construction and Mitigation Procedures (Procedures), as well as its project-specific Erosion Control and Revegetation Plan (ECR Plan), to minimize impacts associated with stormwater discharges (see section 4.2.2).
STATE			
Southwest Clean Air Agency	Air Quality Permit	Consider issuance of permits to construct and operate the Chehalis and Washougal Compressor Stations after modifications.	Northwest would apply for the permits necessary to construct and operate the Chehalis and Washougal Compressor Stations after modifications and would comply with all permit stipulations. An analysis of impacts on air quality associated with the modifications is provided in section 4.11.1.
Washington Department of Community, Trade and Economic Development Growth Management Project	Growth Management Act	Review consistency of the project with the Growth Management Act.	The Growth Management Act requires state and local governments to manage Washington's growth. Additional information regarding the Growth Management Act is provided in section 1.5.2.
Washington Department of Fish and Wildlife (WDFW)	Bald Eagle Management	Develop management plan to minimize impacts on bald eagles.	The requirements of this plan would be addressed through compliance with section 7 of the ESA. Measures Northwest would implement to minimize impacts on bald eagles are discussed in section 4.7.
	Hydraulic Project Approval	Consider issuance of permits to cross and withdraw water from waterbodies.	Northwest would apply for the permits necessary for water use and crossings associated with the project and would comply with all permit stipulations. Information on waterbody crossings and surface water uses during construction is provided in section 4.3.2. Northwest would apply for a permit to withdraw water from surface waters for hydrostatic testing (see section 4.3.2.7). Information on allowable in-stream construction windows is presented in section 4.6.2.3.
Washington Department of Transportation	Road Crossing Permits	Consider issuance of permits to cross state highways.	Northwest would apply for the permits necessary for road crossings and would comply with all permit stipulations. Information on the roads and highways crossed by the Capacity Replacement Project is provided in section 4.9.4.
Washington Office of Archaeology and Historic Preservation (State Historic Preservation Office)	Section 106 Consultation, NHPA	Review and comment on project activities potentially affecting cultural resources.	Northwest, as a non-federal party, is assisting the FERC in meeting its obligations under section 106 and the implementing regulations in Title 36 CFR Part 800 (see section 4.10).

TABLE 1.5-1 (cont'd)

Major Permits, Approvals, and Consultations for the Capacity Replacement Project ^a

Agency	Permit/Approval/ Consultation	Agency Action	Statement of Compliance
Washington Office of the Governor - Puget Sound Action Team	Puget Sound Water Quality Management Plan (PSWQM Plan)	Review consistency of the project with the PSWQM Plan.	The PSWQM Plan is Washington's long-term strategy for protecting and restoring Puget Sound. Information regarding the PSWQM Plan is provided in section 1.5.3.
Washington State Department of Ecology (WDOE)	State Environmental Policy Act (SEPA)	Complete SEPA review of the proposed project.	NEPA documents may be used to meet SEPA requirements if the requirements of the State of Washington Administrative Code 197- 11-610 and 197-11-630 are met and the federal EIS is not found to be inadequate. Additional information on the SEPA process and the WDOE's role as the lead SEPA agency is provided in section 1.2.3. SEPA is also an enforceable policy under Washington's Coastal Zone Management Program (see section 1.5.1).
	Section 401, CWA, Water Quality Certification	Certify that the proposed action is in compliance with state water quality laws and regulations except for the portion of the project on Fort Lewis and tribal lands.	Northwest would apply for the permits necessary for water use and crossings associated with the project and would comply with all permit stipulations. Information on waterbody crossings and surface water uses during construction is provided in section 4.3.2.
	Authorization to Work in Isolated Wetlands	Consider authorization to work in isolated wetlands.	Northwest has requested authorization to work in isolated wetlands, which are regulated by the state but not the federal government. An Administrative Order could be issued by the WDOE to set conditions on this work. Information on the wetlands affected by the Capacity Replacement Project is provided in section 4.4.
	Temporary Water Use Permit	Consider issuance of permit to withdraw water from surface waters for the purpose of hydrostatic testing.	Northwest would apply for a permit to withdraw water from surface waters for hydrostatic testing and would comply with all permit stipulations (see section 4.3.2.7).
	National Pollutant Discharge Elimination System Individual Permit for Stormwater Discharges	Review and issue an individual stormwater permit for the project except for the portion of the project on Fort Lewis and tribal lands. Permit would also cover hydrostatic test water discharges. Construction at compressor stations or other facilities may require a separate permit.	Northwest would apply for a stormwater permit for the project and would comply with all permit stipulations. Northwest would also implement the January 17, 2003 versions of the FERC staff's Plan and Procedures, as well as its project-specific ECR Plan, to minimize impacts associated with stormwater and hydrostatic test water discharges (see sections 2.3.1, 4.2.2, 4.3.1.4, and 4.3.2.7).
	Coastal Zone Management Act (CZMA)	Review consistency of the project with the CZMA.	Northwest submitted a "federal consistency certification" to the WDOE stating the project is consistent with the applicable laws or enforceable policies of Washington's Coastal Zone Management Program. Additional information on the CZMA is provided in section 1.5.1.

TABLE 1.5-1 (cont'd)

Major Permits, Approvals, and Consultations for the Capacity Replacement Project ^a

Agency	Permit/Approval/ Consultation	Agency Action	Statement of Compliance
Washington State Department of Natural Resources (WDNR)	Shoreline Management Act (SMA)	Review local jurisdiction determination of the consistency of the project with the SMA. Make final determination on Shoreline Conditional Use Permit (Whatcom County).	Northwest would apply for the applicable shoreline permits from local jurisdictions affected by the proposed project and would comply with all permit stipulations (see the local permits section of this table). The SMA is an enforceable policy under Washington's Coastal Zone Management Program. Additional information on the CZMA and SMA is presented in section 1.5.1.
	Aquatic Land Lease	Consider issuance or amendment of existing right-of-way agreement to cross state-owned lands.	Northwest would submit a request to the WDNR for an amendment to its existing agreement to cross state-owned lands associated with waterbody crossings. Details on the waterbodies crossed by the Capacity Replacement Project are provided in section 4.3.2.
	Forest Practices Act (FPA)	Review consistency of the project with the FPA.	The requirements of the FPA would be addressed through the NEPA/SEPA process. Forested areas affected by the project are discussed in section 4.5.
	Removal of Abandoned Facilities	Consider approval to leave abandoned facilities on WDNR land.	Northwest would obtain approval to leave abandoned facilities on WDNR land. Information on WDNR land crossed by the Capacity Replacement Project is provided in section 4.8.4.
LOCAL			
Whatcom County	Critical Areas Ordinance	Review consistency of the project with the county Critical Areas Ordinance.	The Growth Management Act requires county and city governments to designate and protect critical areas. Information regarding the Growth Management Act and critical areas ordinances is provided in section 1.5.2.
	Grading Permit	Consider issuance of a permit for excavation and grading activities.	Northwest would apply for a grading permit and would comply with all permit stipulations. and Northwest would also implement the January 17, 2003 versions of the FERC staff's Plan and Procedures, as well as its project-specific ECR Plan, to minimize impacts associated with grading (see section 4.2.2).
	Floodplain Development Permit	Review consistency of the project with title 17, Flood Damage Prevention, of the Whatcom County Code (WCC).	Northwest would apply for a floodplain development permit per WCC 17.12.010 and would comply with all permit stipulations including those for utilities, alteration of watercourses (WCC 17.12.030 D), and floodway encroachments (WCC 17.12.120 A). Information on frequently flooded and flood hazard areas crossed by the Capacity Replacement Project is provided in section 4.3.2.1.
	Major Construction Permit	Consider issuance of a permit for project construction.	Northwest would apply for a major construction permit and would comply with all permit stipulations. Northwest would also implement the January 17, 2003 versions of the FERC staff's Plan and Procedures, as well as its project-specific ECR Plan, to minimize impacts associated with construction (see section 4.2.2).

TABLE 1.5-1 (cont'd)

Major Permits, Approvals, and Consultations for the Capacity Replacement Project ^a

Agency	Permit/Approval/ Consultation	Agency Action	Statement of Compliance
Skagit County ^b	Road Crossing Permits	Consider issuance of permits to cross county roads.	Northwest would apply for the permits necessary for road crossings and would comply with all permit stipulations. Information on the roads and highways crossed by the Capacity Replacement Project is provided in section 4.9.4.
	Shoreline Substantial Development Permit	Consider issuance of a permit to cross waterbodies covered by the SMA.	Northwest would apply for a Shoreline Substantial Development Permit to cross waterbodies covered by the SMA and designated as "Rural" or "Conservancy" and would comply with all permit stipulations. A list of these waterbodies and their associated designations is provided in section 4.3.2. The SMA is also an enforceable policy under Washington's Coastal Zone Management Program. Additional information on the CZMA and SMA is presented in section 1.5.1.
	Shoreline Conditional Use Permit	Consider issuance of a permit to cross waterbodies covered by the SMA.	Northwest would apply for a Shoreline Conditional Use Permit to cross waterbodies covered by the SMA and designated as "Conservancy." A list of these waterbodies and their associated designations is provided in section 4.3.2. The SMA is also an enforceable policy under Washington's Coastal Zone Management Program. Additional information on the CZMA and SMA is presented in section 1.5.1.
	Solid Waste Disposal	Consider approval to dispose of solid waste generated by construction.	Northwest would comply with all federal, state, and local statutes and regulations related to waste disposal. An analysis of the solid waste expected to be generated by the project is presented in section 4.9.3.
	Critical Areas Ordinance	Review consistency of the project with the county Critical Areas Ordinance.	The Growth Management Act requires county and city governments to designate and protect critical areas. Information regarding the Growth Management Act and critical areas ordinances is provided in section 1.5.2.
	Franchise Agreement	Consider amending Northwest's existing agreement to include the new loop.	Northwest would apply for and execute an amended Franchise Agreement to include the new facilities associated with the Capacity Replacement Project.
	Grading Permit	Consider issuance of a permit for excavation and grading activities.	Northwest would apply for a grading permit and would comply with all permit stipulations. Northwest would also implement the January 17, 2003 versions of the FERC staff's Plan and Procedures, as well as its project-specific ECR Plan, to minimize impacts associated with grading (see section 4.2.2).
	Solid Waste Disposal	Consider approval to dispose of solid waste generated by construction.	Northwest would comply with all federal, state, and local statutes and regulations related to waste disposal. An analysis of the solid waste expected to be generated by the project is presented in section 4.9.3.

TABLE 1.5-1 (cont'd)

Major Permits, Approvals, and Consultations for the Capacity Replacement Project ^a

Agency	Permit/Approval/ Consultation	Agency Action	Statement of Compliance
Snohomish County	Conditional Use Permit	Consider issuance of a land use permit.	Northwest would apply for a conditional use permit and would comply with all permit stipulations. Northwest would also implement the January 17, 2003 versions of the FERC staff's Plan and Procedures, its project-specific ECR Plan, and its county-specific Stormwater Pollution Prevention Plan to minimize impacts associated with construction.
	Critical Areas Ordinance	Review consistency of the project with the county Critical Areas Ordinance.	The Growth Management Act requires county and city governments to designate and protect critical areas. Information regarding the Growth Management Act and critical areas ordinances is provided in section 1.5.2.
	Flood Hazard Permit	Review consistency of the project with chapter 30.65 of the Snohomish County Code (SCC).	Northwest would apply for a flood hazard permit per SCC 30.43C.010-200 and would comply with all permit stipulations including those for utilities (SCC 30.65.200), alteration of watercourses (SCC 30.65.110 (4)), and floodway encroachments (SCC 30.65.220 and 230 (1)(b)). Information on frequently flooded and flood hazard areas crossed by the Capacity Replacement Project is provided in section 4.3.2.1.
	Franchise Agreement	Consider amending Northwest's existing agreement to include the new loop.	Northwest would apply for and execute an amended Franchise Agreement to include the new facilities associated with the Capacity Replacement Project.
	Grading Permit	Consider issuance of a permit for excavation and grading activities.	Northwest would apply for a grading permit and would comply with all permit stipulations. Northwest would also implement the January 17, 2003 versions of the FERC staff's Plan and Procedures, its project-specific ECR Plan, and its county-specific Stormwater Pollution Prevention Plan to minimize impacts associated with grading.
	Road Crossing Permits	Consider issuance of permits to cross county roads.	Northwest would apply for the permits necessary for road crossings and would comply with all permit stipulations. Information on the roads and highways crossed by the Capacity Replacement Project is provided in section 4.9.4.
	Shoreline Substantial Development Permit	Consider issuance of a permit to cross waterbodies covered by the SMA.	Northwest would apply for a Shoreline Substantial Development Permit to cross waterbodies covered by the SMA and designated "Rural" or "Conservancy" and would comply with all permit stipulations. A list of these waterbodies and their associated designations is provided in section 4.3.2. The SMA is also an enforceable policy under Washington's Coastal Zone Management Program. Additional information on the CZMA and SMA is presented in section 1.5.1.

TABLE 1.5-1 (cont'd)

Major Permits, Approvals, and Consultations for the Capacity Replacement Project ^a

Agency	Permit/Approval/ Consultation	Agency Action	Statement of Compliance
King County	Solid Waste Disposal	Consider approval to dispose of solid waste generated by construction.	Northwest would comply with all federal, state, and local statutes and regulations related to waste disposal. An analysis of the solid waste expected to be generated by the project is presented in section 4.9.3.
	Critical Areas Ordinance	Review consistency of the project with the county Critical Areas Ordinance.	The Growth Management Act requires county and city governments to designate and protect critical areas. Information regarding the Growth Management Act and critical areas ordinances is provided in section 1.5.2.
	Floodplain Development Permit	Review consistency of the project with chapter 21A.24 of the King County Code (KCC).	Northwest would apply for a floodplain development permit per KCC 21A.24.207 (A) and would comply with all permit stipulations including those for utilities (KCC 21A.24.240 (I)), alteration of watercourses (KCC 21A.24.275), and floodway encroachments (KCC 21A.24.156 (B)). Information on frequently flooded and flood hazard areas crossed by the Capacity Replacement Project is provided in section 4.3.2.1.
	Franchise Agreement	Consider amending Northwest's existing agreement to include the new loop.	Northwest would apply for and execute an amended Franchise Agreement to include the new facilities associated with the Capacity Replacement Project.
	Grading Permit	Consider issuance of a permit for excavation and grading activities.	Northwest would apply for a grading permit and would comply with all permit stipulations. Northwest would also implement the January 17, 2003 versions of the FERC staff's Plan and Procedures, as well as its project-specific ECR Plan, to minimize impacts associated with grading (see section 4.2.2).
	Public Agency Utility Exemption (PAUE)	Consider issuance of a PAUE for the loop within critical areas.	Northwest would apply for a PAUE for the loop within critical areas. Additional information on critical areas ordinances is provided in section 1.5.2.
	Road Crossing Permits	Consider issuance of permits to cross county roads.	Northwest would apply for the permits necessary for road crossings and would comply with all permit stipulations. Information on the roads and highways crossed by the Capacity Replacement Project is provided in section 4.9.4.
Pierce County	Solid Waste Disposal	Consider approval to dispose of solid waste generated by construction.	Northwest would comply with all federal, state, and local statutes and regulations related to waste disposal. An analysis of the solid waste expected to be generated by the project is presented in section 4.9.3.
	Critical Areas Ordinance	Review consistency of the project with the county Critical Areas Ordinance.	The Growth Management Act requires county and city governments to designate and protect critical areas. Information regarding the Growth Management Act and critical areas ordinances is provided in section 1.5.2.

TABLE 1.5-1 (cont'd)

Major Permits, Approvals, and Consultations for the Capacity Replacement Project ^a

Agency	Permit/Approval/ Consultation	Agency Action	Statement of Compliance
Thurston County	Grading Permit	Consider issuance of a permit for excavation and grading activities.	Northwest would apply for a grading permit and would comply with all permit stipulations. Northwest would also implement the January 17, 2003 versions of the FERC staff's Plan and Procedures, as well as its project-specific ECR Plan, to minimize impacts associated with grading (see section 4.2.2).
	Floodplain Development Permit	Review consistency of the project with the Pierce County Flood Damage Ordinance found in chapter 17.24 of the Pierce County Code.	Northwest would apply for a floodplain development permit for any area of special flood hazard as established in Pierce County Ordinance 17A.50 and would comply with all permit stipulations including alteration of watercourses (17A.50.080), deep and/or fast flowing water (17A.50.110), utilities (17A.50.130), floodways (17A.50.170), and major watercourses (17A.50.180). Information on frequently flooded and flood hazard areas crossed by the Capacity Replacement Project is provided in section 4.3.2.1.
	Road Crossing Permits	Consider issuance of permits to cross county roads.	Northwest would apply for the permits necessary for road crossings and would comply with all permit stipulations. Information on the roads and highways crossed by the Capacity Replacement Project is provided in section 4.9.4.
	Shoreline Substantial Development Permit	Consider issuance of a permit to cross the Nisqually River.	Northwest would apply for a Shoreline Substantial Development Permit to cross the Nisqually River, which is covered by the SMA and designated as "Conservancy," and would comply with all permit stipulations. The crossing of the Nisqually River is discussed in section 4.3.2. The SMA is also an enforceable policy under Washington's Coastal Zone Management Program. Additional information on the CZMA and SMA is presented in section 1.5.1.
	Solid Waste Disposal	Consider approval to dispose of solid waste generated by construction.	Northwest would comply with all federal, state, and local statutes and regulations related to waste disposal. An analysis of the solid waste expected to be generated by the project is presented in section 4.9.3.
	Critical Areas Ordinance	Review consistency of the project with the county Critical Areas Ordinance.	The Growth Management Act requires county and city governments to designate and protect critical areas. Information regarding the Growth Management Act and critical areas ordinances is provided in section 1.5.2.
	Franchise Agreement	Consider amending Northwest's existing agreement to include the new loop.	Northwest would apply for and execute an amended Franchise Agreement to include the new facilities associated with the Capacity Replacement Project.

TABLE 1.5-1 (cont'd)

Major Permits, Approvals, and Consultations for the Capacity Replacement Project ^a

Agency	Permit/Approval/ Consultation	Agency Action	Statement of Compliance
1-22	Grading Permit	Consider issuance of a permit for excavation and grading activities.	Northwest would apply for a grading permit and would comply with all permit stipulations. Northwest would also implement the January 17, 2003 versions of the FERC staff's Plan and Procedures, as well as its project-specific ECR Plan, to minimize impacts associated with grading (see section 4.2.2).
	High Groundwater Flood Hazard Area Permit	Review consistency of the project with chapter 17.15 of the Thurston County Code (TCC).	Northwest would apply for a high groundwater flood hazard area permit per TCC 17.15.870 and would comply with all permit stipulations including those for critical areas (TCC 17.15.315). Information on frequently flooded and flood hazard areas crossed by the Capacity Replacement Project is provided in section 4.3.2.1.
	Road Crossing Permits	Consider issuance of permits to cross county roads.	Northwest would apply for the permits necessary for road crossings and would comply with all permit stipulations. Information on the roads and highways crossed by the Capacity Replacement Project is provided in section 4.9.4.
	Shoreline Conditional Use Permit	Consider issuance of a permit to cross the Nisqually River.	Northwest would apply for a Shoreline Conditional Use Permit to cross the Nisqually River, which is covered by the SMA and designated as "Conservancy," and would comply with all permit stipulations. The crossing of the Nisqually River is discussed in section 4.3.2. The SMA is also an enforceable policy under Washington's Coastal Zone Management Program. Additional information on the CZMA and SMA is presented in section 1.5.1.
	Shoreline Substantial Development Permit	Consider issuance of a permit to cross the Nisqually River.	Northwest would apply for a Shoreline Substantial Development Permit to cross the Nisqually River, which is covered by the SMA and designated as "Conservancy," and would comply with all permit stipulations. The crossing of the Nisqually River is discussed in section 4.3.2. The SMA is also an enforceable policy under Washington's Coastal Zone Management Program. Additional information on the CZMA and SMA is presented in section 1.5.1.
	Special Use Permit	Review the project for consistency with the zoning code.	Northwest would apply for a Special Use Permit for work in Thurston County and would comply with all permit stipulations; however, the project is expected to be consistent with the zoning code because the facilities associated with the project in Thurston County would be located within Northwest's existing right-of-way and adjacent to existing aboveground facility sites. Additional information on the proposed facilities and their locations, land requirements, and land use is presented in sections 2.1, 2.2, and 4.8, respectively.

TABLE 1.5-1 (cont'd)

Major Permits, Approvals, and Consultations for the Capacity Replacement Project ^a

Agency	Permit/Approval/ Consultation	Agency Action	Statement of Compliance
Lewis County	Solid Waste Disposal	Consider approval to dispose of solid waste generated by construction.	Northwest would comply with all federal, state, and local statutes and regulations related to waste disposal. An analysis of the solid waste expected to be generated by the project is presented in section 4.9.3.
	Building Permit	Consider issuance of a permit for modifications to the Chehalis Compressor Station.	Northwest would apply for a building permit and would comply with all permit stipulations. Northwest would also implement the January 17, 2003 versions of the FERC staff's Plan and Procedures, as well as its project-specific ECR Plan, to minimize impacts associated with construction (see section 4.2.2).
	Critical Areas Ordinance	Review consistency of the project with the county Critical Areas Ordinance.	The Growth Management Act requires county and city governments to designate and protect critical areas. Information regarding the Growth Management Act and critical areas ordinances is provided in section 1.5.2.
	Grading Permit	Consider issuance of a permit for excavation and grading activities.	Northwest would apply for a grading permit and would comply with all permit stipulations. Northwest would also implement the January 17, 2003 versions of the FERC staff's Plan and Procedures, as well as its project-specific ECR Plan, to minimize impacts associated with grading (see section 4.2.2).
City of Lake Stevens (Snohomish County)	Solid Waste Disposal	Consider approval to dispose of solid waste generated by construction.	Northwest would comply with all federal, state, and local statutes and regulations related to waste disposal. An analysis of the solid waste expected to be generated by the project is presented in section 4.9.3.
	Critical Areas Ordinance	Review consistency of the project with the city Critical Areas Ordinance.	The Growth Management Act requires county and city governments to designate and protect critical areas. Information regarding the Growth Management Act and critical areas ordinances is provided in section 1.5.2.
	Grading Permit	Consider issuance of a permit for excavation and grading activities within city limits.	Northwest would apply for a grading permit and would comply with all permit stipulations. Northwest would also implement the January 17, 2003 versions of the FERC staff's Plan and Procedures, as well as its project-specific ECR Plan, to minimize impacts associated with grading (see section 4.2.2).
City of Redmond (King County)	Critical Areas Ordinance	Review consistency of the project with the city Critical Areas Ordinance.	The Growth Management Act requires county and city governments to designate and protect critical areas. Information regarding the Growth Management Act and critical areas ordinances is provided in section 1.5.2.

TABLE 1.5-1 (cont'd)

Major Permits, Approvals, and Consultations for the Capacity Replacement Project ^a

Agency	Permit/Approval/ Consultation	Agency Action	Statement of Compliance
City of Sammamish (King County)	Grading Permit	Consider issuance of a permit for excavation and grading activities within city limits.	Northwest would apply for a grading permit and would comply with all permit stipulations. Northwest would also implement the January 17, 2003 versions of the FERC staff's Plan and Procedures, as well as its project-specific ECR Plan, to minimize impacts associated with grading (see section 4.2.2).
	Critical Areas Ordinance	Review consistency of the project with the city Critical Areas Ordinance.	The Growth Management Act requires county and city governments to designate and protect critical areas. Information regarding the Growth Management Act and critical areas ordinances is provided in section 1.5.2.
	Grading Permit	Consider issuance of a permit for excavation and grading activities within city limits.	Northwest would apply for a grading permit and would comply with all permit stipulations. Northwest would also implement the January 17, 2003 versions of the FERC staff's Plan and Procedures, as well as its project-specific ECR Plan, to minimize impacts associated with grading (see section 4.2.2).

^a Consultations with Native American tribes are discussed in section 4.10.3.

^b Shoreline and road crossing permits are not required from Skagit County because no roads or waterbodies would be crossed by the Capacity Replacement Project within the county.

The Capacity Replacement Project is subject to a federal Coastal Zone Consistency Review because it would involve activities within the coastal zone of Washington, including activities in Whatcom, Skagit, Snohomish, King, Pierce, and Thurston Counties. The modifications to the existing Chehalis and Washougal Compressor Stations would not be included in the federal Coastal Zone Consistency Review because they are located in Lewis and Clark Counties, respectively, which are not part of the coastal zone. Activities associated with the abandonment of the existing 26-inch-diameter pipeline in Lewis, Cowlitz, and Clark Counties would also not be included in the federal Coastal Zone Consistency Review.

Under the Washington CZMP, activities that affect any land use, water use, or natural resource within the coastal zone must comply with six laws or enforceable policies. These six laws include:

- the Shoreline Management Act (SMA)
- the SEPA;
- the CWA;
- the Clean Air Act (CAA);
- the Energy Facility Site Evaluation Council (EFSEC); and
- the Ocean Resource Management Act (ORMA).

Additional information on these six laws and how they apply or do not apply to the proposed Capacity Replacement Project is provided below. Northwest, as the applicant for the activities that require federal approval, reviewed the project for compliance with the six laws and prepared a “federal consistency certification.” Northwest submitted its certification directly to the WDOE, which is the agency responsible for reviewing the project for consistency with the CZMP. In the event that Northwest seeks preemption from the local shoreline permit processes, Northwest also submitted a document to the WDOE explaining how the project would comply with local agency shoreline policies and regulations. The analysis would help the WDOE issue the CZMP decision. If the Capacity Replacement Project is approved by the Commission, concurrence from the WDOE that the project is consistent with the Washington CZMP must be received before construction. Therefore, **the FERC staff recommends that:**

- **Northwest file documentation of concurrence from the WDOE that the project is consistent with the Washington CZMP with the Secretary of the Commission (Secretary) before construction.**

Shoreline Management Act

The SMA was started by citizen initiative and a revised version was later passed by the Washington State Legislature in 1971. The SMA establishes the foundation of Washington’s federal CZMP.

The SMA is the principal means of regulating shoreline land and water uses throughout the state including the coastal zone and requires cities and counties to develop Shoreline Master Programs (SMP). The WDOE reviews and formally adopts the SMPs. The SMPs contain specific regulations and polices that are locally determined to promote orderly and reasonable development of waterfront lands. Local SMPs must be consistent with statewide polices. The overall intent is to protect the resources and ecology of Washington’s largest streams, lakes, and marine waters.

Shoreline permit decisions are made and issued by local governments; however, the WDOE reviews those decisions. In addition, for shoreline conditional use or variance permits, the WDOE is responsible for approving, denying, or approving with additional conditions the local decision. Shoreline permits may be appealed to the State Shorelines Hearings Board.

Advance consultation with WDOE field/technical staff regarding design parameters and regulatory interpretation is advisable. The WDOE provides technical assistance to local governments and applicants on request.

Based on a review of the SMPs within each local jurisdiction crossed by the project, local permits would be required for the loops to be installed across shorelines in Whatcom, Snohomish, Pierce, and Thurston Counties (see table 1.5-1). Detailed information on the designated shorelines crossed by the proposed loops is presented in section 4.3.2.1.

State Environmental Policy Act

SEPA supplements the authority of the SMA (WDOE, 2001a). SEPA requires government agencies to analyze the environmental impacts of activities they are asked to approve. As discussed in section 1.2.3, the WDOE has been designated the lead SEPA agency. Additional information on the SEPA process and the WDOE's role as the lead SEPA agency for the Capacity Replacement Project is provided in section 1.2.3.

Clean Water Act

The federal CWA addresses the issue of managing developments to improve, safeguard, and restore the quality of the nation's waters, including coastal waters, and to protect the natural resources and existing uses of those waters (WDOE, 2001a). The state Water Pollution Control Act authorizes the WDOE to participate fully in and meet the requirements of the federal CWA. The three primary objectives of the WDOE's water quality program include:

- protecting, preserving, and enhancing the quality of the state surface water and underlying sediments; ensuring the wise, environmentally sound use of the water;
- preventing generation of pollutants; and
- achieving a water-quality stewardship ethic and educated public (WDOE, 2001a).

The WDOE has the authority to administer section 401 Water Quality Certifications and National Pollutant Discharge Elimination System (NPDES) permits within the state, except for those activities on federal or tribal lands. As indicated in table 1.5-1, Northwest would apply for the permits necessary to comply with the CWA. The WDOE's section 401 Water Quality Certification may include effluent and mixing zone conditions to meet state water quality standards. An analysis of impacts on surface waters and Northwest's proposed mitigation measures to minimize impacts is presented in section 4.3.2.

Clean Air Act

The federal CAA combined with the Clean Air Washington Act is a comprehensive system that protects and enhances air quality. As discussed more fully in section 4.11.1, modifications at three of the five compressor stations associated with the Capacity Replacement Project would not affect air quality. The modifications at the Chehalis and Washougal Compressor Stations would be more significant modifications that would affect air quality. As previously discussed, the Chehalis and Washougal Compressor Stations are located in counties outside the coastal zone (i.e., Lewis and Clark Counties, respectively) and, therefore, are not subject to a federal Coastal Zone Consistency Review. However, Northwest would apply for the permits necessary to construct and operate the Chehalis and Washougal Compressor Stations after modifications (see table 1.5-1).

Energy Facility Site Evaluation Council

The EFSEC is a one-stop, state-local permitting system for large thermal energy facilities, oil refineries that process petroleum transported over marine waters, and petroleum and natural gas pipelines (WDOE, 2001a). Intrastate natural gas pipelines larger than 14 inches in diameter and greater than 15 miles in length are subject to review by the EFSEC. Because Northwest operates an interstate natural gas pipeline system under the jurisdiction of the FERC, the proposed facilities are not subject to review by the EFSEC.

Ocean Resource Management Act

Like SEPA, the ORMA supplements the SMA (WDOE, 2001a). However, unlike SEPA that applies statewide, the ORMA only applies to the Pacific Ocean extending from Cape Flattery south to Cape Disappointment and beginning at the mean high tide line and running seaward for 200 miles. As a result, the Capacity Replacement Project is not subject to the ORMA.

1.5.2 Growth Management Act

The Growth Management Act was passed in 1990 to address what the Washington State Legislature referred to as uncoordinated and unplanned growth that posed a threat to the environment, sustainable economic development, and the quality of life in Washington. The Growth Management Act requires state and local governments to manage Washington's growth by identifying and protecting critical areas and natural resource lands, designating urban growth areas, and preparing comprehensive plans. Each of the local government jurisdictions crossed by the proposed loops has implemented a comprehensive plan and has critical areas ordinances in place. A summary of the jurisdictions crossed by the loops is provided in section 2.1.1.

Comprehensive Plans

A comprehensive plan is a land use document that provides the framework and policy direction for land use decisions. According to the Growth Management Act, the plans must contain information on land use, transportation, housing, capital facilities, utilities, shorelines, and rural areas (for counties). Chapters addressing economic development and parks and recreation also are required if state funding is provided. Comprehensive plans may also include information on conservation and energy. In general, because the majority of the facilities associated with the Capacity Replacement Project would be located within Northwest's existing permanent right-of-way (see section 2.2), no conflicts with county or city comprehensive plans are anticipated. A detailed discussion of land uses affected by the project facilities, including recreation uses, is presented in section 4.8. Section 4.9 contains information about impacts associated with the project on population, economy, housing, public services, and transportation.

Critical Areas Ordinances

As required by the Growth Management Act, all of the local government jurisdictions affected by the proposed project have critical areas ordinances. There are five critical areas identified in the Growth Management Act: geologically hazardous areas (including erosion hazard areas), areas with a critical recharging effect on aquifers used for potable water, frequently flooded areas, wetlands, and fish and wildlife habitat conservation areas (Washington State Department of Community, Trade, and Economic Development, 2003). Designated critical areas affected by the Capacity Replacement Project are identified and discussed in the applicable resource sections in section 4.0 of this EIS.

1.5.3 Puget Sound Water Quality Management Plan

In 1991 the EPA adopted the PSWQM Plan as the Comprehensive Conservation and Management Plan for Puget Sound under the National Estuary Program, which was established in section 320 of the CWA (WDOE, 2001a). The PSWQM Plan addresses the waters of Puget Sound and the Strait of Juan de Fuca and all waters flowing into them (i.e., Puget Sound Basin). Under the PSWQM Plan, the WDOE prepared the Stormwater Management Manual for the Puget Sound Basin. The manual contains best management practices (BMPs) to control runoff, erosion, sedimentation, and pollution from development sites. As discussed in more detail in sections 2.3 and 4.2.2, Northwest has prepared a project-specific Erosion Control and Revegetation Plan (ECR Plan) that addresses the WDOE's requirements for construction stormwater discharge.